

Claims 15 and 19 - 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlston (U.S. Pat. No. 4,998,997) in view of Magowan (U.S. Pat. No. 136,079).

Claims 21 - 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlston (U.S. Pat. No. 4,998,997) in view of Magowan (U.S. Pat. No. 136,079) in view of Platkiewicz (U.S. Pat. No. 4,465,799) and further in view of Curtis (U.S. Pat. No. 5,036,774) and Spencer et al. (U.S. Pat. No. 5,086,707).

The rejections are traversed as follows.

The Carlston reference teaches a side bearing unit for articulated railroad cars. "The side bearing unit of this invention is designed to meet the unique demands of articulated car service." (Carlston, col. 1, l. 55 - 56). The Carlston side bearing unit includes a housing 54, a round top cap 32, and a pair of elastomeric springs 36 and 38 accommodated therebetween. The springs are open-ended hollow tubes. (See col. 3, ll. 62-63). The springs are designed to fold and flex so that during a normal work cycle, the slope of the force vs. travel curve remains as flat as possible. (See col. 3, line 64 to col. 4, line 1). The elastomeric spring is designed so that throughout its total travel from free height, it is folding and flexing rather than compressing. (See col. 4, lines 15-19).

Additionally, the Carlston reference teaches the spring having a loading area that remains essentially the same throughout its total travel in a work cycle. This is accomplished by designing the spring so that the outside diameter minus the inside diameter is less than the height within the side bearing. (See col. 4, lines 17-22).

"The combined effect of elastomer springs in series, and fold and flex of the elastomer, and the generally constant loaded areas result in the low spring rate or

flat force versus travel curve as in Fig. 3. This low spring rate is of great importance in order to satisfy the unique demands of articulated cars. A high spring rate would result in possible derailment while the car is traversing a super elevated curve or in the case of the worn articulated connection as previously described." (Carlston, col. 4, l. 5 - 14).

Magowan teaches a solid toroidal spring having a circular cross-section. The Magowan spring is designed to be compressed under load. (See col. 2, l. 16-18).

Claim 1 of the present invention recites the following:

1. A bearing pad assembly comprising:
 - a first housing having an exterior surface and defining a bore extending at least part-way through said first housing;
 - a first load bearing member coupled to said first housing, and defining an outwardly facing first abutment surface;
 - a second housing defining a bore of a shape similar to said exterior surface of said first housing and adapted to slideably receive said first housing therein;
 - a second load bearing member coupled to said second housing and defining an outwardly facing second abutment surface opposite to said first abutment surface;
 - at least one slip lining positioned between said first housing exterior surface and a bore wall defining said second housing bore; and
 - at least one compression spring positioned within said first housing bore, wherein said compression spring comprises a solid resilient material having a toroidal shape, the toroid having an outside diameter minus an inside diameter equal to or greater than a height when positioned in the bearing pad assembly.

The Examiner's rejection of claim 1 under 35 U.S.C. § 103(a) is based on a combination of the Carlston reference in view of Magowan in view of Platkiewicz.

The Examiner has cited Carlston as the primary reference wherein the Examiner has allegedly identified all of the elements of claim 1 except for: 1) " at least one slip lining positioned between said first housing exterior surface and a bore wall defining said second housing bore; ... ", and 2) "at least one compression spring ... wherein said compression spring comprises a solid resilient material having a toroidal shape...".

With regard to the solid torus shaped compression spring, the Examiner states that Magowan teaches a solid torus shaped compression spring and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a solid toroid according to the teachings of Magowan in an assembly according to Carlston in order to provide a biasing means with a high degree of elasticity but also with great economy and cheapness. (Final Office Action, ¶ 2, l. 15 -18).

Additionally, the Examiner has acknowledged, quoting *In re Fine*, 837 F.2d 1071, "that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one skilled in the art." (See Final Office Action, ¶ 5, l. 6 - 11). Here, the Examiner has cited as motivation to combine the Magowan solid toroidal spring with the Carlston side bearing unit the following partial sentence from the Magowan reference: "... whereby is provided a spring having a high degree of elasticity, together with great bearing strength, and which may be manufactured with great economy and consequent cheapness." (Magowan, p. 1, ll. 10 -13).

Applicant respectfully submits that this excerpt from the Magowan

reference does not provide a motivation or suggestion to combine the teachings of Magowan with the Carlston reference. "To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references....". *Ex Parte Clapp*, 227 USPQ 972, 973 (B.P.A.I, 1985).

Here, the quote from the Magowan reference identified by the Examiner as providing a motivation to combine the solid toroid spring of Magowan with the teachings of Carlston does not expressly or impliedly suggest the bearing pad assembly as recited in Applicant's claim 1. Additionally, the Examiner has not presented any line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the identified teachings of the Magowan reference.

"When the incentive to combine the teachings of the references is not apparent, it is the duty of the examiner to explain why combination of the reference teachings is proper ... Absent such reasons or incentives, the teachings of the references are not combinable." *Ex Parte Skinner*, 2 USPQ 2d 1788, 1790 (B.P.A.I, 1986).

In this case, the Applicant submits that it is not apparent from the partial statement identified by the Examiner from the Magowan disclosure as to why the combination of references is proper. To provide a motivation or suggestion to make the combination, "the question is whether there is something in the prior art to suggest the desirability and thus the obviousness of making the combination." *In re Beattie*, 974 F.2d 309, 1311 -12, 24 USPQ 2d 1040, 1042 (Fed. Cir. 1992). Here,

to provide a suggestion or motivation sufficient to support the cited combination, the Magowan reference would need to suggest or provide a motivation for placing the solid toroid spring disclosed, in a bearing pad assembly having the structure recited in claim 1.

Thus, the reference would need to suggest a bearing pad assembly having a first housing having an exterior surface and defining a bore extending at least part-way through the first housing; a first load bearing member coupled to said first housing, and defining an outwardly facing first abutment surface; a second housing defining a bore of a shape similar to said exterior surface of said first housing and adapted to slideably receive said first housing therein; a second load bearing member coupled to said second housing and defining an outwardly facing second abutment surface opposite to said first abutment surface; wherein at least one compression spring is positioned within the first housing bore, wherein said compression spring comprises a solid resilient material having a toroidal shape. The partial statement from the Magowan reference does not suggest a desirability to combine the solid toroid spring of Magowan with the side bearing unit disclosed in Carlston such that the claimed invention would be obvious.

Because the Examiner has not explained the specific understanding or principle within the statement identified in the Magowan reference that would motivate one to make the combination, it must be inferred that the Examiner has selected these references with the assistance of hindsight. "The court forbids the use of hindsight in the selection of references that comprise the case of obviousness." *In re Roufett*, 47 USPQ 2d 1453, 1458 (Fed. Cir. 1998).

As there is no suggestion or motivation to combine the Magowan reference

with the Carlston reference, the cited combination is improper and the rejection of claim 1 under 35 U.S.C. § 103(a) based on the combination of Carlston in view of Magowan should be withdrawn.

Referring again to the rejection of claim 1 under 35 U.S.C. § 103(a) based on the combination of Carlston in view of Magowan, the Applicant has submitted that the Carlston reference teaches away from the cited combination of including a solid toroid according to the teachings of Magowan in an assembly according to Carlston. "It is improper to combine the references where the references teach away from their combination." *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769,779 (Fed. Cir. 1983).

As mentioned above, the Carlston side bearing unit is designed using a hollow spring specifically designed to fold and flex under load and provide a flat force versus travel curve wherein the solid spring of Magowan is designed to compress providing increased resistance throughout its travel. As clearly stated in the Application, and illustrated in Fig. 3 thereof, a solid resilient toroid yields a non-linear spring, (i.e., a spring in which the relationship between compression and force defines a line whose slope is not constant). (Application, p. 3, ll. 18 - 19, pg. 6, ll. 16 -18). Thus, a solid toroid spring such as the Magowan spring produces a high spring rate, exactly the opposite as that desired by Carlston. Thus, Carlston specifically teaches away from using a solid spring such as that of Magowan. Therefore, the Carlston reference is improper to support the cited combination.

The Examiner has acknowledged that Carlston teaches away from the combination and has responded "instead of using Carlston's hollow spring, it would have been obvious to one of ordinary skill in the art to which the invention

pertains at the time the invention was made to have used the solid spring of Magowan for its cheapness, economy and elasticity." (See Final Office Action, ¶ 5, ll. 15 -17 and 19 -22). The Examiner's logic is flawed. The section 103 rejection is based on the Applicant's claimed bearing pad assembly being obvious over the structure of the Carlston side bearing unit having the hollow spring that is designed to fold and flex being removed and the Magowan solid toroidal spring being inserted in the housing structure disclosed by Carlston. Accordingly, as the Examiner has acknowledged that the Carlston reference teaches away from the claimed invention, then Carlston is not a proper reference to support the combination. It is improper for the Examiner to admit that the Carlston reference teaches away from the combination and not withdraw the rejection.

Furthermore, the Examiner has stated, "However, Applicant has merely identified Carlston's invention." (See Final Office Action, ¶ 5, ll. 17 - 18). This is true, the Applicant's argument is that, taken by itself, the Carlston reference teaches away from the cited combination wherein a side bearing pad as disclosed by Carlston is combined with the solid spring of Magowan. Although the above-identified Grasselli citation presented in the MPEP § 2145 (X)(D)(2) includes the word "references" in a plural form, all of the references of the cited combination do not have to teach away from the combination to render the combination improper to support an obvious rejection. In this case, as the Examiner has acknowledged that the Carlston reference teaches away from the combination, the Carlston reference itself, is an improper reference in the combination, and does not support the combination. Thus, the rejection of claim 1 under 35 U.S.C. § 103(a) based on the combination of Carlston in view of Magowan should be withdrawn.

Additionally, the Applicant has argued that the proposed modification to the Carlston reference would render the Carlston side bearing unit unsatisfactory for its intended purpose. "If the proposed modification would render the prior art unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

As discussed above, the Carlston side bearing pad is specifically designed to fold and flex rather than compress providing a low spring rate or flat force versus travel curve. In contrast, as also discussed above, a solid toroid spring such as the Magowan spring produces a high spring rate, exactly the opposite as that desired by Carlston. Clearly, the solid toroidal spring of Magowan would render the Carlston side bearing unit useless for the intended purpose of meeting the unique demands of articulated car service. In fact, as stated by Carlston, a high spring rate may derail the articulated cars. Accordingly, the proposed modification to the Carlston side bearing unit would render the device unsatisfactory for its intended purpose, thus, there is no suggestion or motivation to make the proposed modification.

In response, the Examiner has stated that he "respectfully disagrees" and that "a Carlston bearing unit with a Magowan spring would function as a side bearing pad." (See Final Office Action, ¶ 5, ll. 23 - 25). To suggest that the Carlston side bearing unit would function for its intended purpose for use with articulated cars is simply not accurate and completely opposite of the express teachings of the reference. In fact, to arrive at this conclusion, the Examiner must completely ignore the teachings of Carlston.

Accordingly, for at least the above-identified reasons, the rejection of claim

1 under 35 U.S.C. § 103(a) based on the combination of Carlston in view of Magowan should be withdrawn and claim 1 allowed.

Claims 3-8, 10-14, 17 and 18 each ultimately depend from and further limit claim 1. Accordingly, these dependent claims are likewise deemed nonobvious for at least the reasons set forth above directed to claim 1.

Similarly, regarding the rejection of claims 15, 19 and 20 are under 35 U.S.C. § 103(a) as being unpatentable over Carlston (U.S. Pat. No. 4,998,997) in view of Magowan (U.S. Pat. No. 136,079), the same reasoning applied above with respect to the Carlston and Magowan references with respect to the rejection of claim 1 apply equally here. Because claims 19 and 20 each ultimately depend from and thereby incorporate the limitations of claim 15, these dependent claims are likewise deemed nonobvious for at least the reasons for claim 15.

Claims 21 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlston (U.S. Pat. No. 4,998,997) in view of Platkiewicz (U.S. Pat. No. 4,465,799) and further in view of Curtis (U.S. Pat. No. 5,036,774) and Spencer et al. (U.S. Pat. No. 5,086,707). The rejection is traversed as follows.

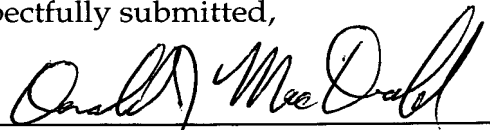
Claims 21 and 22 each depend either directly or indirectly from independent claim 15, thus, these dependent claims are deemed nonobvious for at least the reasons set forth above for independent claim 15.

CONCLUSION

In view of the foregoing, it is believed that all pending claims, namely, claims 1, 3, 5-8, 10-15 and 17-22 of this application are in condition for allowance and such action is earnestly solicited.

Applicant believes that no additional fee is due in connection with this filing. Please charge any deficiency in fee due or any other fee required for this application to Deposit Account No. 13-0235.

Respectfully submitted,

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